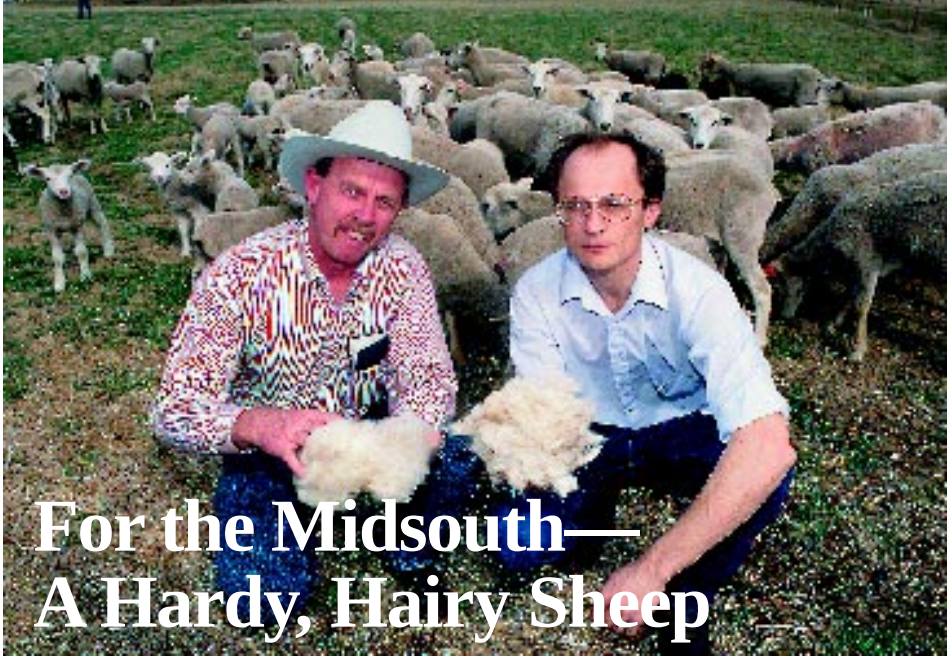

KEN HAMMOND

For the Midsouth— A Hardy, Hairy Sheep

Animal scientists Michael Brown (left) and Art Goetsch compare wool from Gulf Coast Native sheep with hair (in Art's hand) from St. Croix sheep. (K7272-1)

Sheep with historic links to long-ago French and Spanish settlements could provide welcome extra income to 21st-century rural southern landowners with limited acreage.

These wool-type sheep, known as Gulf Coast Natives, are part of a multiyear crossbreeding program at ARS' South Central Family Farm Research Center near Booneville, Arkansas. The program's designed to yield a new composite sheep that is specially suited for the midsouth environment.

"In the South, you have the perfect climate for parasites that can infest sheep," explains animal scientist Michael A. Brown, who heads the Booneville facility. "There's also the problem of our heat and humidity.

"Often, the wool markets are so far away that it's really not worth the grower's efforts to try to ship and sell the wool. And they still have the expense of having the animals sheared, so a hair animal would be better for this area."

The Gulf Coast Native fulfills two of Brown's three requirements: an ability to take the heat and unusually high resistance to parasite infestation. As for the hair-versus-wool dilemma, Brown and ARS animal scientist Art L. Goetsch plan to cross the Gulf Coast Natives with haired St. Croix sheep, another breed with superior tolerance to steamy temperatures and parasites.

Despite their name, the Gulf Coast Natives' roots are believed to lie overseas, perhaps in Merino sheep from Spain and Rambouillets from France that were brought to the New World by Spanish and French explorers and settlers. Other possible contributors to the Natives' genetic blend are the Southdown, Hampshire, Dorset Horn, and Cheviot breeds.

As the years passed, Native sheep populations were concentrated in Gulf Coast states such as Florida and Louisiana. Hot summers and plentiful parasites weeded out weaker sheep, leaving the survivors to sire new generations of especially hardy animals.

Sheep are a good choice for the small rural landowner, as well as for the beginning livestock grower, says Goetsch. "In this region, we can grow forage and trees," he notes. "To use the forage, you have to turn to ruminant animals.

"Beef cattle are popular, but they're more capital-intensive. You can get into sheep production for a relatively low cost, and they're a little easier for the new producer to manage. As for land requirements, in our part of the country, you need about 2 acres for a cow-calf pair. On that amount of land, you can put six to eight ewes, plus their offspring, until weaning size."

The Booneville researchers have been studying St. Croix sheep since 1988 and started gathering their Gulf Coast Native flock in 1994.

In 1992, they began crossing St. Croix and Polypay ewes—the latter another composite U.S. breed—with Texel and Romanov rams. The resultant crossbred ewes were mated to Dorset rams.

"You can maximize the hybrid vigor that comes from crossbreeding by incorporating a third breed," explains Brown. "What we have now is sheep that are half Dorset, one-quarter St. Croix, and one-quarter Romanov. We're in the process of evaluating those animals, but we'll probably take some of the better ewes and cross them with Gulf Coast Natives to try for a parasite-resistant, heat-resistant, hair-type animal."

"So far, our half-Dorset lambs have done well," Goetsch adds. "They're good-sized animals, and their performance up to weaning age has been comparable to some of the bigger crossbred wool sheep."

"We don't know how well the heat tolerance of the Natives and St. Croix will carry through into offspring," Brown concludes.

"But there are promising precedents in cattle. When you cross the more heat-tolerant Brahman with Angus cattle, the offspring tend to have increased heat tolerance."—By **Sandy Miller Hays**, ARS.

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